

R E M A R K S

Claims 1, 7 and 15 have been amended. Claim 17 has been added. No claims have been canceled.

Double Patenting Rejection:

Application number 09/088,005 will be abandoned in due course to alleviate the double patenting rejection.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Liang et al (US5781233). Applicant respectfully disagrees. The claimed invention requires "an amplifier having a first input coupled for receiving the pixel signals, a first output for providing an imaging signal, and a control input coupled for receiving control data representing a predetermined region characterization to amplify the pixel signals to different gains when the pixel signals are generated in different regions of the optical sensor." The claimed invention amplifies pixel signals to different gains when the pixel signals are generated in different regions of the optical sensor according to control data representing a predetermined region characterization. The invention is concerned with characterizing a sensor after it has been manufactured into different regions where the regions are effected by the same intensity of light differently according to fluctuations in process or other variations experienced in the production of the sensor. Each region's characterization is then used to modify the gain of the signal produced from the pixels in that region when the sensor detects images.

Liang, in contrast, teaches an optical sensor that adjusts the gain according to previous maximum values in the data

stream. In Liang, a row of pixels produces a row of corresponding pixel data. This data is fed through to the AGC (automatic gain control circuit). While the signals are being amplified, a level detector 42 also monitors the pixel signal stream of data to detect the maximum signal in the stream. The level detector 42 provides an output signal that "varies as a function of the maximum previously measured voltage value of the pixel information stream." This output signal is used to adjust the gain so that it properly limits the gain of the amplifier based on the maximum measured voltage value of the pixel information stream. Typically this is done to prevent the amplifier from providing the same gain to pixel signals that represent similar intensities at the highest level. In any case, the gain is not determined by a predetermined region characterization as required by the claimed invention nor is the gain for a signal even region dependent but is only dependent on a maximum voltage previously detected in the data stream. See Col. 7, lines 5-10 and lines 24-28 along with column 12, line 44 - column 13, line 3.

A similar discussion is maintained with regard to dependent claims 2-3 and 5-6.

Claims 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang et al in view of Applicant's conceded prior art. Applicant respectfully disagrees. In addition to the argument above with regard to the claimed invention requiring the gain to for a region's pixel signal to be based on control data representing a predetermined region characterization, the Office Action improperly makes the argument that the Applicant has conceded that it would be obvious to compensate for different responses to light across

different regions of an optical sensor. This is incorrect. The applicant only shows that it is known that a problem exists: namely, photoactive devices in different regions of the sensor generate pixel signals of different amplitudes when the intensity of light is the same. Even allowing for gain adjustments according to Liang would not compensate for these process based irregularities as Liang only demonstrates a way of keeping the gain from producing the wrong results when the voltage indicating an intensity exceeds a maximum value by adjusting the gain according to a function determined by a previous pixel data stream. As Liang does not address the problems of process dependent region variations, it does not render the disclosed solution obvious just because a problem is known to exist. Accordingly, the rejection with regard to claims 7-16 should be withdrawn and a favorable action on the merits respectfully requested.

Accordingly, this application is believed to be in proper form for allowance and an early notice of allowance is respectfully requested.

Please charge any fees associated herewith, including extension of time fees, to 13-4771.

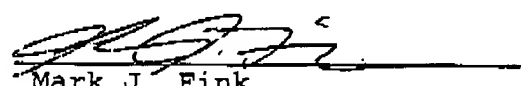
Respectfully submitted,

SEND CORRESPONDENCE TO:

Motorola, Inc.
Law Department

Customer Number: 23330

By:


Mark J. Fink
Attorney of Record
Reg. No.: 45,270
Telephone: 602-952-4399
Fax No.: 602-952-4376